

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated August 28, 2003 (U.S. Patent Office Paper No. 3). In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 2 is canceled without prejudice or disclaimer, while claims 1, 3, 12, 13, and 14 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. In addition, new claims 15 to 28 are hereby submitted for consideration. Support for the recitation of new claims 15 and 16 can be found in the specification, on page 17, lines 18 through 21. Claims 17 to 28 include all the features of claims 1 and 4 through 14 and in addition, they recite the feature of "predicted position". This amendment is supported by the specification and in particular, the feature of "predicted position" is disclosed by the specification in page 17, lines 18 through 21.

Formal Objections or Rejections

Claims 2 and 3 were rejected under 35 U.S.C. §112, second paragraph, for being indefinite. In particular, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants canceled claim 2 and amended claim 3. Applicants respectfully submit that the amendment to claim 3 has cured all the outstanding informalities.

Prior Art Rejections

Claims 1 to 14 were rejected under 35 U.S.C. §102(b) as being anticipated by Roel-Ng *et al.*, U.S. Patent 6,002,936 (further, the '936 patent). Applicants respectfully traverse the rejection.

Amended claim 1 recites a mobile terminal apparatus comprising a transmission unit, a reception unit for receiving signals which are transmitted from a plurality of signal generating sources, and a positioning unit for performing a position detecting operation by way of a positioning method based upon propagation delay time of said received signals, wherein the mobile terminal apparatus performs said position detecting operation for a

requested service which uses a detected position, the accuracy of said position detecting operation by said positioning unit is variable, said accuracy of said position detecting operation is set according to a predetermined correspondence between accuracy requirement and a kind of a requested service, and said positioning unit executes the position detecting operation by way of a positioning method in accordance with said set accuracy.

Amended claim 12 recites a server apparatus for providing plural sorts of services by using information related to a position of a detected mobile terminal, wherein said server apparatus is comprised of a table which describes a corresponding relationship between said plural sorts of services and said accuracy of the position detecting operations, in the case that a request of providing a service is received, said server apparatus retrieves accuracy of a position detecting operation corresponding to said requested services from said table, said server apparatus transmits such an instruction for performing the position detecting operation in said retrieved accuracy to said mobile terminal, said server apparatus receives the result of said position detecting operation, and said server apparatus generates service information related to said required service based upon the result of said position detecting operation and outputs said generated service information.

Amended claim 14 recites a service providing method for providing plural sorts of services by utilizing information related to a position of a detected mobile terminal, comprising a step for receiving a request for providing a service and setting accuracy of detecting the position of said mobile terminal in response to said service request, according to a predetermined correspondence between accuracy requirement and a sort of a requested service, a step for transmitting such an instruction for performing the position detecting operation in said set accuracy to said mobile terminal, a step for receiving the result of said position detecting operation, and a step for generating service information related to said required service based upon the result of said position detecting operation and for outputting said generated service information.

The Examiner alleged in the office action, on pages 2 and 3, that the disclosure of Figs. 4 and 5 from the '936 patent anticipates the recitation of claims 1 to 14. Applicants respectfully disagree.

The present invention is characterized by a relationship between the services to be provided and an accuracy predefined for such services that has been determined in advance. When it is necessary to detect a position for the services, the accuracy corresponding to the service is determined based on the requested service. When position detection is required in

order to provide the service, the necessary accuracy is determined based on the kind of service to be provided and retrieved from a server.

Regarding the method of the present invention, Applicants respectfully submit that it is performed based on the relationship between the kind of service and the accuracy, as described in detail by the specification on pages 21, lines 18 to page 22, lines 17. The method determines the positioning accuracy depending on the kind of service.

The '936 patent discloses in col. 4, lines 41 to 59, a process for choosing the optimum positioning method in order to meet quality of service demands. The '936 patent does not disclose, teach or suggest that the determination of accuracy is made based on the kind of service or that the correspondence between the accuracy requirement and the kind of service to be provided has been determined in advance. Further, the '936 reference does not disclose, teach or suggest the inherent relationship between a service and its accuracy requirement. The '973 only mentions in col. 4, lines 33 to 38, that "...the MPC 370 must then determine the optimum positioning method based on available network-based and terminal-based positioning methods and the quality of service requested by the RA 380." Based on the above, Applicants respectfully submit that the '936 patent does not disclose, teach or suggest all the features of claims 1, 12 and 14 as claimed. Therefore, the '936 patent does not anticipate the recitation of claims 1, 12 and 14.

Claims 3 to 13 depend from and add features to allowable claims as discussed above. Therefore, Applicants will contend that they are allowable for the same reasons.

Claims 1 to 14 were rejected under 35 U.S.C. §102(e) as being anticipated by Bloebaum, U.S. Patent Application No. 2002/0082774 A1 (further, the '774 application). The Examiner alleged on page 3 of the Office Action that the method disclosed by Fig. 2 of the '774 application anticipates the recitation of claims 1 to 14. Applicants respectfully disagree.

Fig. 2 of the '774 application discloses a structure for a mobile terminal that performs a positioning application. According to paragraph [0023] of the '774 application, a positioning application 26 running either within the mobile terminal 100 itself or in the mobile communication network 10 requests a position update from the mobile terminal 100. Microprocessor 116 determines a desired quality of service (QoS). To make this determination of QoS, microprocessor 116 may, for example, prompt the user with a menu of choices related to desired positioning quality of service (QoS). One such menu could contain selections such as "Most accurate," "Fastest," "Least Expensive." However, the '774 application does not disclose, teach or suggest that the accuracy of the position detecting

operation is set according to a predetermined correspondence between accuracy requirement and a kind of requested service, as recited by claim 1. The '774 application teaches only that "Depending on the desired QoS (quality of service), the microprocessor 116 may respond in a variety of ways." (Examples: aiding data from the core network, providing data stored in its own memory to the GPS receiver to use in performing position calculations, or instructing the GPS receiver to acquire current aiding data from a GPS satellite.) Based on the above, Applicants submit that not all the features of claim 1 are disclosed, taught or suggested by the '774 application, whereby claims 1 to 14 are not anticipated by the '779 application.

Claims 1 to 14 were rejected under 35 U.S. C. §102(e) as being anticipated by Kinnunen *et al.*, U.S. Patent Application No. 2001/0018349 A1 (further, the '349 application). The Examiner alleged in the Office Action on page 3 that paragraphs 6, 24, 73 and 98 of the '349 application anticipate the recitation of claims 1 to 14. Applicants respectfully disagree.

The '349 reference discloses in the above referenced paragraphs that it has been proposed to use a GPS receiver in mobile telephones in a mobile telecommunications network for location determination. This means that the mobile telephone can be located in the event of it making emergency calls. Alternatively it can be used to provide interactive map services, for example in a navigation system. In such a system, mobile terminals are tracked and provided with information to guide a user, typically the driver of an automobile, to reach a particular location. Further, it is disclosed that preferably, the system has a selector for selecting location information from one particular location information source when location information from more than one location information is available. Further yet, it discloses a system for providing LDSs to mobile terminals that can be integrated in mobile communication systems. Paragraph [0098] particularly discloses that "It should be understood that all of the available sources of information are not alternatives but present a pool from which the system can choose. Although all of the possibilities mentioned might not be present, if two or more location information sources are available, they are aggregated and stored in the location server 252. In this way the best, or most appropriate, source of location information may be used. For example, in the case of a call made by the user to an emergency service, although the network can establish the origin of such a call using TOA/EOTD calculations, more accurate information may be desired, in which case other sources of location information may be used, for example GPS (if it is available). In other words, the

system is able to use location information to track a user/ME 214 to a sufficient or greater level of accuracy. “

Applicants respectfully submit that they have attentively reviewed the ‘349 application including the paragraphs referenced by the Examiner and summarized above, and cannot find in the ‘349 application any disclosure, teaching or suggestion about several features of claim 1, such as the accuracy being determined based on the nature of the service and a correspondence between the accuracy requirement and the kind of service being determined in advance. Based on the above, Applicants will contend that this reference fails to anticipate every feature of the invention as claimed, and thereby respectfully invite the Examiner to withdraw the rejection formulated based on the ‘349 application.

Claims 1 to 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Gillbert *et al.*, U.S. Patent No. 6,430,505 (further, the ‘504 patent) in view of Pande *et al.*, U.S. Patent Application No. 2002/0154058 (further, the ‘058 application).

Applicants respectfully submit that the present patent application enjoys the benefit of priority date January 10, 2002.

The ‘504 patent was filed on March 7, 2000 and issued, becoming available to the public, on August 6, 2002. Therefore, it was not available prior to the priority date and can not constitute a proper primary reference for the purpose of an §103(a) rejection against the present application.

The ‘058 application was published on October 24, 2002, a date later than January 10, 2002, the priority date of the present application. Therefore, the ‘058 application cannot constitute proper secondary reference for the purpose of a §103(a) rejection. Applicants respectfully ask the Examiner to consider the above and to withdraw the rejection under 35 U.S.C. §103(a) against claims 1 to 14.

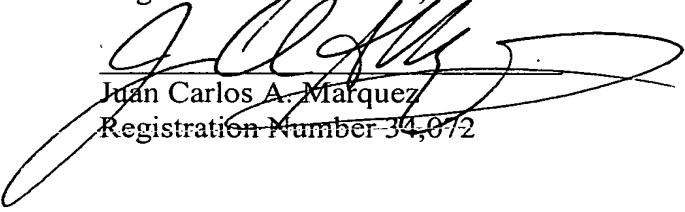
Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

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